

Physics of Transition Metal Oxides and Related Materials, Elbio Dagotto and Adriana Moreo, Florida State University/University of Tennessee, DMR0122523

Our group predicted the possibility of colossal effects in high T_c superconductors (SC). Due to the disorder induced by random doping an inhomogeneous ground state with incoherent SC clusters is observed. Proximity to a SC material induces coherence in the clusters in a similar manner in which the colossal magnetoresistance occurs in manganites with a magnetic field. (cond-mat/0401474).

